

CLAIMS

1 Coated metal surface comprising, successively :

- a layer (1) of epoxy primer placed next to the metal,
- a layer (2) of binder comprising 98 to 50 parts by weight of at least one fluoropolymer L3 per 2 to 50 parts, respectively, of at least one polymer chosen from acrylic polymers L1 and polymers L2 which are fluoropolymers chemically modified by a partial dehydrofluorination followed by an oxidation,
- a layer (3) of fluoropolymer.

2 Coated metal surface comprising, successively :

- a layer (1) of epoxy primer placed next to the metal,
- a layer (2) of binder comprising 98 to 50 parts by weight of at least one fluoropolymer L3 per 2 to 50 parts, respectively, of at least one polymer chosen from acrylic polymers L1 and polymers L2 which are fluoropolymers chemically modified by a partial dehydrofluorination followed by an oxidation.

3 Coated metal surface which is the outer surface of tubes, comprising, successively:

- a layer (2) of binder placed next to the metal and comprising 98 to 50 parts by weight of at least one fluoropolymer L3 per 2 to 50 parts, respectively, of a mixture comprising at least one polymer chosen from the polymers L2 which are fluoropolymers chemically modified by a partial dehydrofluorination followed by an oxidation, and optionally at least one polymer chosen from acrylic polymers L1,
- a layer (3) of fluoropolymer.

4 Coated metal surface comprising, successively :

- a layer (1) of primer placed next to the metal and comprising 1 to 70 parts of a polymer chosen from polymers L2 which are fluoropolymers chemically modified by a partial dehydrofluorination followed by an oxidation, per 30 to 5 99 parts, respectively, of an epoxy primer,
- a layer (3) of fluoropolymer.

5 Coated metal surface according to any one of Claims 1 to 4, in which the epoxy primer is the product of the reaction of a thermosetting epoxy 10 resin and of a hardener.

6 Coated metal surface according to Claim 5, in which the gel time defined by Afnor standard NFA 49-706 is advantageously between 20 and 60 seconds.

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7 Coated metal surface according to Claim 5 or 6, in which the Tg of the epoxy primer is greater than 120°C.

8 Coated metal surface according to any one of Claims 1 to 3, in 20 which the acrylic polymer L1 is a copolymer of methyl methacrylate and of acrylic acid.

9 Coated metal surface according to any one of Claims 1 to 3, in which the Tg of the acrylic polymer L1 is greater than or equal to 120°C.

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10 Coated metal surface according to any one of Claims 1 to 4, in which the polymer which is chemically modified to obtain L2 is a fluoroplastic or a fluoroelastomer which contains units of general formula (I):



in which X and X' may be, independently of each other, a hydrogen atom, a halogen, in particular fluorine or chlorine, or a perhaloalkyl, in particular perfluoroalkyl.

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11 Coated metal surface according to Claim 10, in which the oxidation to prepare L2 is obtained in heterogeneous aqueous medium with hydrogen peroxide (H_2O_2) or with the hypochlorite anion (ClO^-).

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12 Coated metal surface according to any one of claims 1 to 3, in which the fluoropolymer L3 is chosen from PVDF homopolymer and VF2-HFP copolymers.

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13 Coated metal surface according to any one of Claims 1 to 3, in which the melting point of L3 is greater than 150°C.

14 Coated metal surface according to any one of Claims 1, 3 and 4, in which the fluoropolymer of the layer (3) is PVDF homopolymer or a VF2-HFP copolymer having a melting point of at least 165°C.

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15 Product according to any one of Claims 1, 2 and 4, in which the surface is the outer surface of tubes.